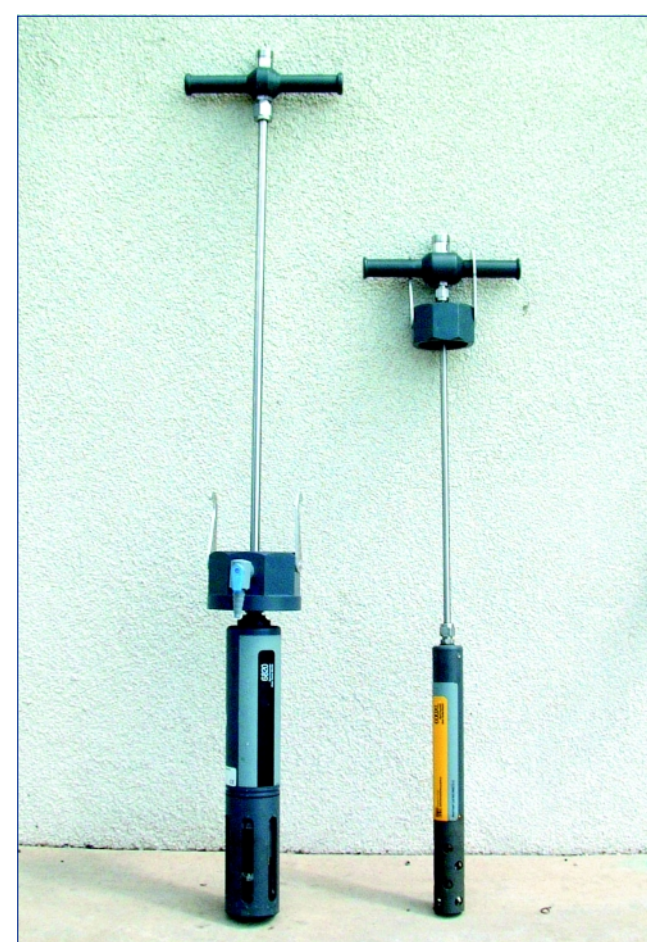


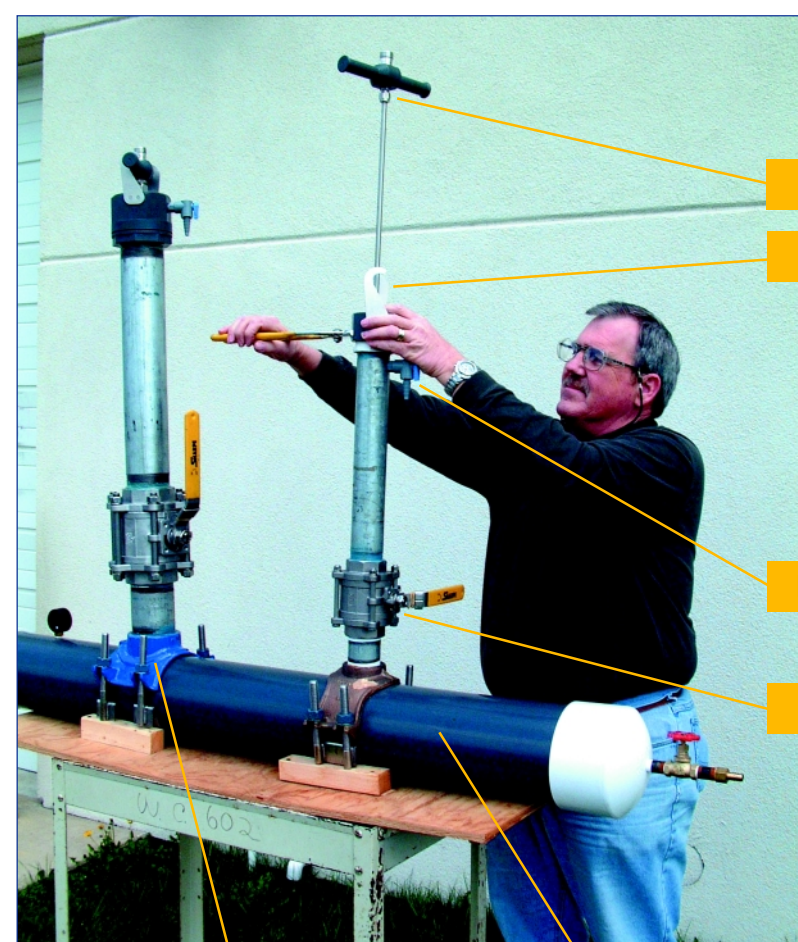


Y S I Environmental

In-Situ Drinking Water Monitoring System



Modified YSI 6-Series sondes



Standard pipe saddles

Simulated water main

Plunger

Hooks

Bleed valve

Ball valve

INSTALLATION INSTRUCTIONS

- Choose sonde type: 600XL for 2 inch pipe or 6820 for 3 inch pipe
- Calibrate sensors according to standard instructions.
- Install standard pipe saddle with ball valve attached using commercially available parts.
- Tap pipe with 2 inch or 3 inch opening and close ball valve.
- With ball valve closed, insert sonde onto valve seat and tighten top fitting
- Open ball valve to flood sonde.
- Open bleed valve on top fitting to remove all air from system
- Press down on plunger to move sonde into water stream in distribution pipe
- Lock sonde in place by rotating top retainer bar until hooks are engaged.
- Attach a cable and apply power.

STATEMENT OF WORK FOR THE COLLABORATIVE PROJECT BETWEEN YSI AND THE US EPA

Goal:

The goal of this CRADA is to collaborate using EPA's technical expertise and YSI instrumentation technical knowledge expertise to evaluate a sensor response to changes in water quality associated with the injection of chemical and biological contaminants into a distribution system.

Product:

The EPA shall provide technical oversight in the development of a device called a Sensor Cradle Coupon (SCC) to be used to insert a multi-sensor probe (YSI 6-Series Sonde) or modified YSI 6-Series Sonde directly into a distribution system. The primary final product from this CRADA shall be a jointly patented device that can accommodate the insertion of a multi-sensor probe directly into a distribution system to directly monitor the quality of water in any distribution system in real-time. The in-line sensor will then be tested to evaluate real-time changes in water quality due to various introductions of contaminants under controlled experimental conditions.

SYSTEM FEATURES

- Allows proven YSI 6-Series water quality monitoring sondes to be inserted directly into drinking water distribution mains.
- Easy insertion and removal at pressures up to 150 psi.
- Sensor accuracy not affected by pressure
- Line pressure can be monitored
- Proven YSI 6136 turbidity sensor with a detection limit in drinking water of 0.3 NTU.
- New pH sensors which improve flow cell performance are under evaluation.
- RS-232 data logging to computer or internal memory or SDI-12 standard.
- Can output data to SCADA systems in RS-485 Modbus or 4-20 mA protocols with optional YSI 6500
- Can utilize either 600XL(lower cost) or 6820 (ISEs and turbidity) sondes after modification

